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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,840	01/19/2007	Hideki Kitano	Q94324	5035
23373 7590 11/12/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER VERDERAME, ANNA L.				
ART UNIT		PAPER NUMBER		
1722				
NOTIFICATION DATE		DELIVERY MODE		
11/12/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
USPTO@SUGHRUE.COM

### Office Action Summary

**Application No.**

10/574,840

**Applicant(s)**

KITANO ET AL.

**Examiner**

ANNA L. VERDERAME

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) 16-31 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/GG-6)  
Paper No(s)/Mail Date 04/06/2006 and 03/10/2010  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of claims 1-15 in the reply filed on 08/19/2010 is acknowledged.
2. Claims 16-31 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 08/19/2010.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10, and 12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitano WO 03/032305(US 2004 0257972 used as an English language translation).

Kitano discloses a photo-curable transfer sheet.

The limitations of claim 2 are taught at (0091) and (0166) respectively

The limitations of claim 3-4 are taught at (0092).

The limitations of claims 5-6 are taught at (0090).

The limitations of claims 7-9 are taught at 0164-0167.

Note that the composition formed in applicant's specification at 0283-0286 is identical to that formed in the Kitano reference at 0164-0167 except that the applicant has added a tackifier. Note the results of tests with the sheet taught at 0283-0286 in table 2. Also note the "b" value taught in table 2 which meets the limitation of claim 1. Composition 5 taught by applicant is identical to that taught in Kitano except for the addition of a tackifier.

Applicant cites examples of tackifiers at 0186. Addition of additives including rosins, terpene resins etc (identical to the ones taught by applicant at 0186) are taught in the Kitano reference at (0108). This disclosure meets the limitations of claim 10.

It would have been obvious to add any of the additives disclosed at 0108 to the photo-curable transfer sheet disclosed at 0164-0167 based on the disclosure to do so at 0108 and with the reasonable expectation of success.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitano WO 03/032305(US 2004 0257972 used as an English language translation) In view of Takamatsu US 6,586,496.

With regard to claims 11 Kitano recites addition of particles of silica gel, calcium carbonate or silicone copolymer but does not recite the size of these particles.

Takamatsu discloses a photo-curable resin composition further comprising an inorganic filler such as silica or calcium carbonate having an average particle size in the range from 0.005 to 10 micrometers(.5-10,000 nm)(10/1-21) These fillers act to provide the cured resin with a resistance to moisture, adhesive strength and thixotropy.

It would have been obvious to add fillers to the photo-curable composition of Kitano based on the disclosure to do so at for example 0111 and to have these particles have a size of .5 to 300 nm based on the use of particles having this size in the photo-curable composition taught by Takamatsu and with the reasonable expectation of obtaining the benefits taught by Takamatsu including forming a cured resin having resistance to moisture, adhesive strength and thixotropy.

6. Claims 11 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Kitano WO 03/032305(US 2004 0257972 used as an English language translation) in view of Hojo et al. US 2003/0129385.

With regard to claims 11 Kitano recites addition of particles of silica gel, calcium carbonate or silicone copolymer but does not recite the size of these particles.

Kitano also discloses addition of an aging resistant agent which functions like applicants phenol compound described in applicant's specification at (0208-0210).

Hojo discloses a photo-curable resin composition for forming an embossed pattern therein wherein the resin composition contains an inhibitor such as hydroquinone in the amount of 0.1 to 0.3% by weight(0175). Hojo et al also discloses addition of inorganic fine particles such as silica which have a particle size from 1-300 nm(0140 and 0142,0144). Using bulky superfine particles in the photo-curable resin composition can cause improvements in creep characteristics and retention of embossed patterns(0143).

It would have been obvious to one of ordinary skill in the art to modify the photo-curable resin composition taught by Kitano by adding a photo-inhibitor such as hydroquinone in order to improve the shelf-stability of the photo-curable resin as taught by Hojo et (0175).

Further it would have been obvious to add inorganic fine particles having a size of 1 to 300 nm based on the disclosure in Kojo et al. that adding these particles results in improved creep characteristics and retention of embossed patterns.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNA L. VERDERAME whose telephone number is (571)272-6420. The examiner can normally be reached on M-F 8A-4:30P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached at (571)272-1526. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anna L Verderame/  
Examiner, Art Unit 1722

/Cynthia H Kelly/  
Supervisory Patent Examiner, Art Unit 1722